

**Decimal Addition**

The normal rules for the “+” operator apply. The main thing to remember is to add like to like; i.e., add hundreds to hundreds. The easiest way to do this is to align each term of the calculation using the decimal point.

**Example 1 - Addition**

What is the sum of 13.876, 167.2, 1296 and 0.002?

Answer:

	1000's	100's	10's	1's	.	$\frac{1}{10}$ 's	$\frac{1}{100}$ 's	$\frac{1}{1000}$ 's	
	↓	↓	↓	↓		↓	↓	↓	
					.				+
		1	1	1		8	7	6	+
			2	6	.	2			+
		9	7	3		0	0	2	+
		6	9	6	.	0	0	2	+
=		1	4	7	.	0	7	8	

Note: the number “1296” is aligned as if it had a decimal point; i.e., “1296.0”

And here’s how it’s done. Always start from the right:

Step 1: **6 + 2 = 8**

Answer:

					.			6	+
			1	6	.	2			+
		9	7	3		0	0	2	+
		6	9	6	.	0	0	2	+
=					.	0	0	8	

Step 2: **7 + 0 = 7**

Answer:

					.		7	6	+
			1	6	.	2			+
		9	7	3		0	0	2	+
		6	9	6	.	0	0	2	+
=					.	0	7	8	

Step 3: **8 + 2 = 10** write down the “0” and carry the “1”

Answer:

			13		.	8	7	6	+
			1	6	.	2			+
		9	7	3		0	0	2	+
		6	9	6	.	0	0	2	+
=					.	0	7	8	

Step 4:  $1 + 3 + 7 + 6 = 17$  write down the "7" and carry the "1"

Answer:

$$\begin{array}{r}
 \phantom{1} \phantom{2} \phantom{9} \phantom{6} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \phantom{1} \phantom{2} \phantom{9} \overset{1}{\phantom{6}} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \phantom{1} \phantom{2} \phantom{9} \overset{1}{6} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 1 \phantom{2} \phantom{9} \overset{1}{6} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \hline
 = \phantom{1} \phantom{2} \phantom{9} \overset{1}{7} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+}
 \end{array}$$

Step 5:  $1 + 1 + 6 + 9 = 17$  write down the "7" and carry the "1"

Answer:

$$\begin{array}{r}
 \phantom{1} \phantom{2} \phantom{9} \overset{1}{\phantom{6}} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \phantom{1} \phantom{2} \phantom{9} \overset{1}{6} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \phantom{1} \phantom{2} \overset{1}{9} \overset{1}{6} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 1 \phantom{2} \overset{1}{9} \overset{1}{6} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \hline
 = \phantom{1} \phantom{2} \overset{1}{7} \overset{1}{7} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+}
 \end{array}$$

Step 6:  $1 + 1 + 2 = 4$  write down the "4"

Answer:

$$\begin{array}{r}
 \phantom{1} \phantom{2} \overset{1}{\phantom{9}} \overset{1}{\phantom{6}} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \phantom{1} \phantom{2} \overset{1}{9} \overset{1}{6} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \phantom{1} \overset{1}{2} \overset{1}{9} \overset{1}{6} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 1 \overset{1}{2} \overset{1}{9} \overset{1}{6} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \hline
 = \overset{1}{4} \overset{1}{7} \overset{1}{7} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+}
 \end{array}$$

Step 7:  $1 + 0 = 1$  write down the "1"

Answer:

$$\begin{array}{r}
 \overset{1}{\phantom{1}} \overset{1}{\phantom{2}} \overset{1}{\phantom{9}} \overset{1}{\phantom{6}} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \overset{1}{\phantom{1}} \overset{1}{\phantom{2}} \overset{1}{\phantom{9}} \overset{1}{\phantom{6}} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \overset{1}{1} \overset{1}{\phantom{2}} \overset{1}{\phantom{9}} \overset{1}{\phantom{6}} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+} \\
 \hline
 = \overset{1}{1} \overset{1}{4} \overset{1}{7} \overset{1}{7} \phantom{.} \phantom{8} \phantom{7} \phantom{6} \phantom{+}
 \end{array}$$